The United States and Article VI: A Record of Accomplishment

May 6, 2008

Introduction

YOUR PRESENTERS TODAY:

- **DR. CHRISTOPHER A. FORD**, United States Special Representative for Nuclear Nonproliferation
- **WILLIAM H. TOBEY**, Deputy Administrator for Nuclear Nonproliferation, NNSA

WHAT IS NNSA?

- Semi-autonomous agency within Energy Department responsible, *inter alia,* for developing, manufacturing, and maintaining all U.S. nuclear weapons, and for working to reduce global dangers from WMD.

Outline

- **INTRODUCTION**

- **THE U.S. RECORD ON DISARMAMENT – PART I**
  - Reducing delivery systems
  - Reducing reliance on nuclear weapons
- **THE U.S. RECORD ON DISARMAMENT – PART II**
  - Weapons drawdown and elimination
  - Reducing the weapons infrastructure
  - RRW
  - Fissile material removals
  - U.S. programs to strengthen nuclear nonproliferation

- **QUESTIONS & ANSWERS**

Disarmament and the NPT

- Easing international tension and strengthening trust between States in order to facilitate disarmament is recognized in the **Preamble** as a goal.
- **Article VI** calls for both good faith negotiations on nuclear disarmament and a treaty on general and complete disarmament under international control.
- The United States is committed to the goals of the Preamble and Article VI
- Dramatic **Article VI** progress is visible in reductions since the end of the Cold War. There is no U.S.-Russian nuclear arms race today, but there is growing concern about the emergence of regional arms races: hence the importance of nonproliferation compliance for Article VI success.
- NPT **Review Cycle** - discussion of the Treaty's operation, in all respects.
- RevCons & Final Documents consistently address Article VI issues.
- Differences of view exist as to whether all the nuclear weapon states have gone far enough, fast enough to meet Article VI commitments.
  - United States open to dialogue on conditions needed to achieve both nuclear disarmament and general and complete disarmament.

U.S. Outreach

LONGSTANDING PRIORITY OF ENGAGEMENT

- Two briefings on Article VI issues at 2000 NPT RevCon
- Multiple fact sheets and speeches explaining U.S. record
- Public booth and presentation at 2005 NPT RevCon
- Engagement / dialogue on Article VI issues and accomplishments
  - Briefing and papers/brochure on disarmament for 2007 NPT PrepCom
  - Briefing at UN First Committee Meetings in October 2007
  - Briefings to IAEA and Conference on Disarmament in Feb., 2008
- Active public outreach: notice of steps taken & vision for future

http://www.nnsa.energy.gov
and
http://www.state.gov/t/isn/wmd/nnp/c21893.htm

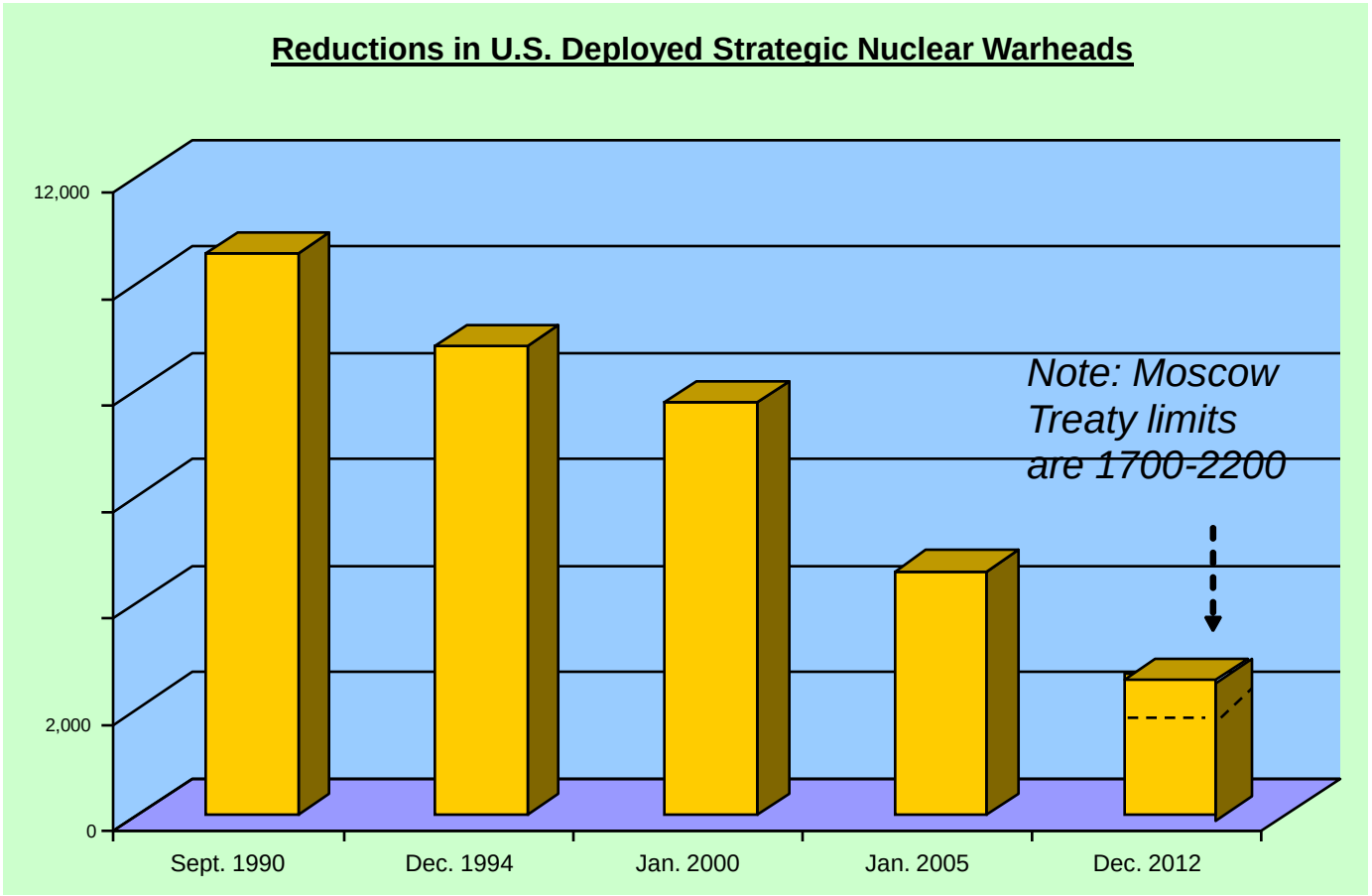
Concrete Steps

- **Reduced reliance** on nuclear weapons in U.S. security strategy.
- **Drawdown** of operationally-deployed strategic nuclear weapons continues toward Moscow Treaty figures of 1,700-2,200 by 2012.
  - Fewer than 2,877 operationally deployed strategic nuclear warheads in the current stockpile.
  - Retirements originally slated for 2012 already completed by the end of 2007 and an additional 15 percent are now slated for dismantlement
- **Dismantlement** of nuclear weapons accelerated.
- **Removal** of fissile materials from national security stocks continue.
  - Sec Energy Bodman announced in September 2007 the removal of an additional 9 metric tons of weapons-grade plutonium beyond the 52.5 MT already removed.
- U.S. tabled treaty to **ban production of fissile material** for weapons (FMCT).
- Continued **moratorium** on nuclear testing (15 years since last U.S. test).
- Ongoing **discussions** with Russia on a Post-START arrangement after Treaty expiration in December 2009.
  - Focus on transparency and confidence-building measures to enhance strategic security relationship.

Nuclear Weapons in U.S. Policy

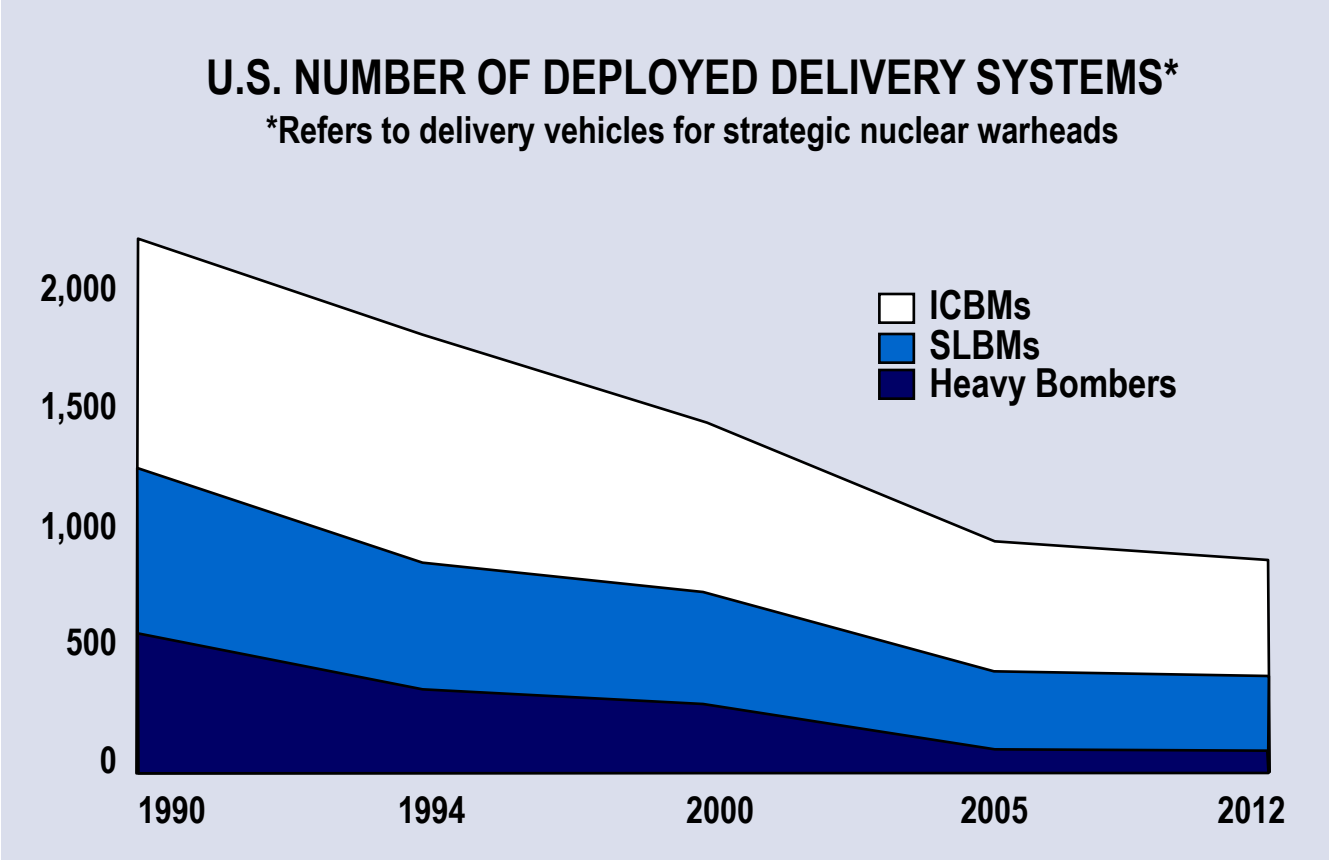
- A principal national security goal of the United States is to deter aggression against ourselves, our allies, and friends.
- It is U.S. policy to achieve an effective strategic deterrent at the lowest level of nuclear weapons consistent with our national security and our commitments and obligations to allies.
  - Reducing reliance on nuclear weapons by improving non-nuclear means to achieve deterrence.
- In 2001, President Bush directed that the United States **reduce** the number of operationally deployed strategic nuclear weapons to 1,700-2,200 by 2012.
- Corresponding dismantlement of warheads in the nuclear stockpile will result in the **lowest level since the Eisenhower Administration**.

Reduction in U.S. Deployed Strategic Nuclear Warheads



Note: comparisons between 1990-2005 and 2012 are approximate.

Reducing Delivery Systems



Dramatic Reductions Since End of Cold War

Nuclear Weapons Dismantlement

Completed W79 dismantlement in 2003

Completed W56 dismantlement in 2006

Since 1992, 13 different nuclear weapon types have been retired and eliminated

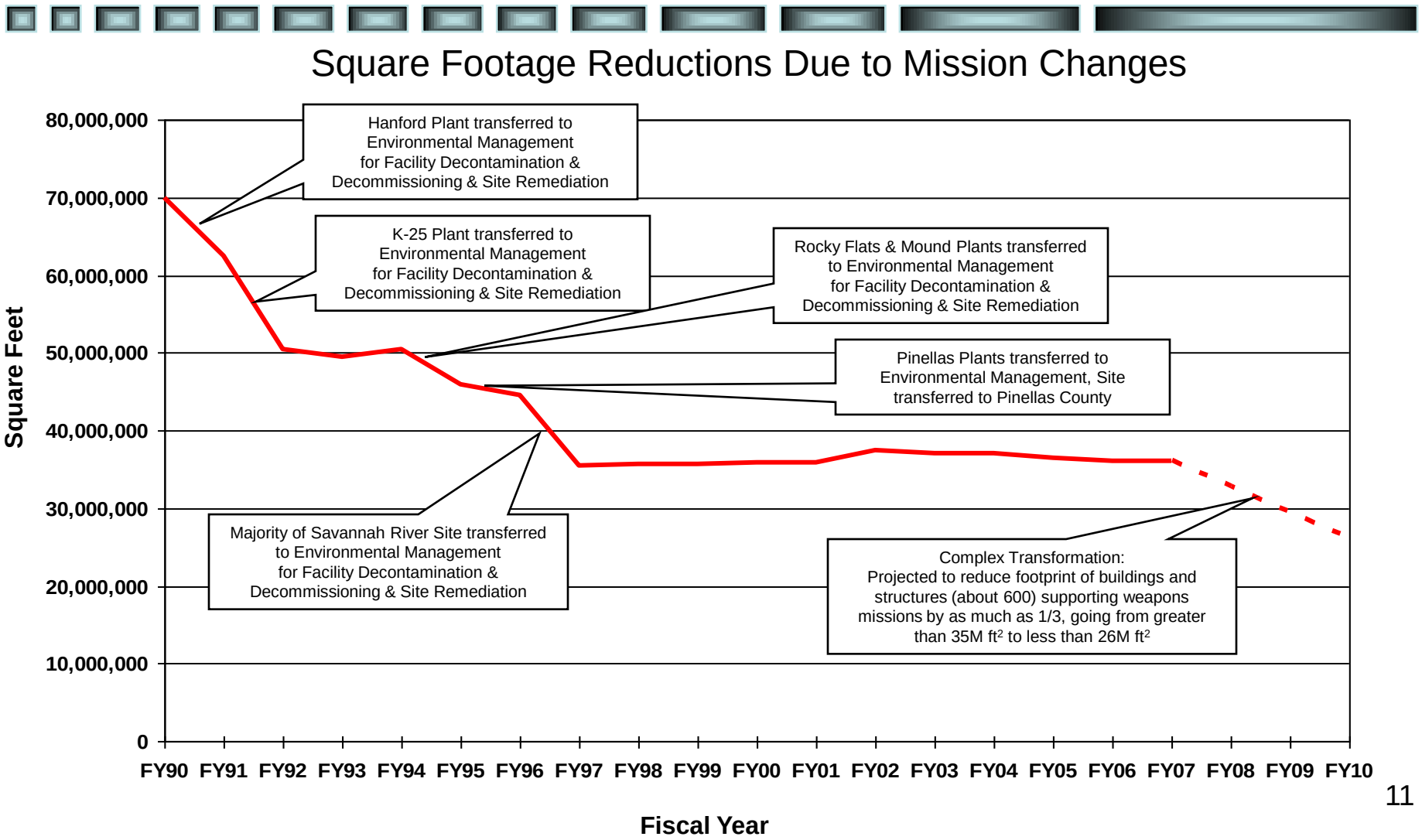
Pantex Plant weapons assembly and disassembly facility.

Dismantlement of W56

- **In 2004, President Bush directed that the stockpile be reduced nearly 50 percent by 2012**
- **In 2007, NNSA increased dismantlement rates for retired weapons by 146% over prior year**
- **In 2007, met warhead retirement target originally anticipated for 2012; now working to reduce another 15%**

When we fulfill our current dismantlement plans, we will have dismantled three out of every four warheads that existed in 1991

Reduction in Weapons Complex



Fissile Material Production for Weapons Stopped

Hanford's F Reactor – completely dismantled in 2003

- No production of Highly Enriched Uranium (HEU) for weapons since 1964 and HEU production plants closed.
  - Oak Ridge HEU plant closed in 1987
- No production of plutonium for U.S. weapons since 1988.
  - Last U.S. plutonium reactors shut down in 1989

HEU Removed from National Security Stocks

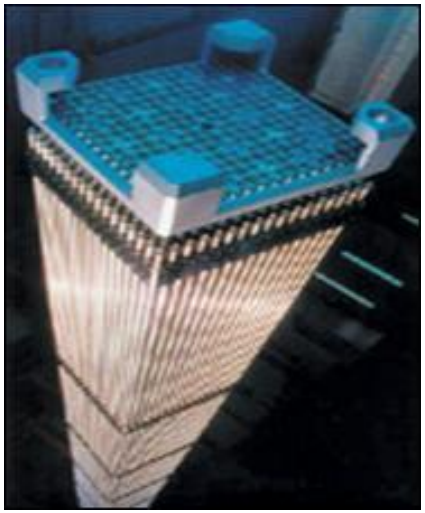
- **In 1994, the United States declared 174 MT of HEU excess to defense needs.**
  - **89 MT of HEU down-blended to low-enriched uranium reactor fuel**
  - **10.6 MT of HEU delivered for near-term down-blending**
  - **17.4 MT of HEU set aside for the Reliable Fuel Supply; down-blending to LEU to start this year**
- **In 2005, the United States withdrew an additional 200 MT of HEU from use in nuclear weapons.**

374 MT of HEU removed from U.S. stocks – equivalent to roughly 15,000 nuclear weapons

(using IAEA "significant quantity" definition)

Plutonium Removed from National Security Stocks

- **In 1994, roughly 50 MT of plutonium declared excess to national security requirements.**
- **Plutonium Disposition Agreement with Russia commits both sides to disposition 34 MT each of weapons-grade plutonium.**
  - Construction of U.S. MOX facility started in 2007.
  - U.S. and Russia agreed upon a technically and financially credible program for Russian plutonium disposition.
- **In September 2007, declared an additional 9 MT of weapons grade plutonium removed from national security stocks.**



Mixed oxide fuel assembly

61.5 MT of plutonium removed from U.S. stocks – equivalent to roughly 7,600 nuclear weapons

(using IAEA "significant quantity" definition)

Ceasing Production of Weapons Grade Plutonium

1997 Plutonium Production Reactor Agreement: requires cessation of weapons-grade plutonium production for use in nuclear weapons in United States and Russia

Monitoring activities provide confidence that:

1) shut down reactors in both countries do not resume operation,
2) plutonium produced by Russia's last 3 operating reactors is securely stored and not used in nuclear weapons.

Elimination of Weapons Grade Plutonium:

Programs in Zheleznogorsk and Seversk to refurbish and build heat and electricity plants to facilitate the shutdown of the last 3 weapons-grade plutonium production reactors in Russia.

- Shutdown one reactor at Seversk in April 2008; reached agreement with Russia to shutdown other by June 2008, six months early.
- Plan to close Zheleznogorsk reactor by 2009, one year ahead of schedule.

Computer simulation of Zheleznogorsk plant

HEU Removed from Russian Dismantled Weapons

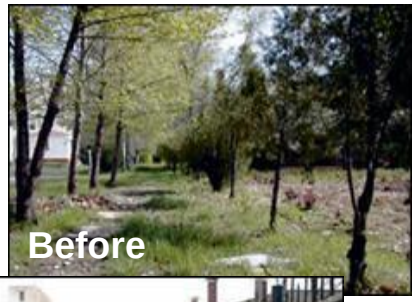
- **1993 U.S.-Russia HEU Purchase Agreement provides for the elimination of 500 MT of HEU from dismantled Russian weapons to fuel U.S. nuclear power plants.**

  ~ Transparency measures give U.S. monitors confidence 30 MT Russian HEU is downblended every year and eliminated from Russian stocks. (IAEA equivalent to 1,200 nuclear weapons destroyed annually)

327 MT of HEU removed from Russian stockpiles to date -- equivalent to destroying over 13,000 nuclear weapons (per IAEA significant quantity measure)

Securing Nuclear and Radiological Material Worldwide

- Converted 51 reactors in 29 countries from HEU to LEU (additional 4 shutdown)
- Returned 590kg of Russian-origin HEU, 1,140kg of U.S. HEU, and over 140kg of other HEU
- Secured nearly 600 vulnerable radiological sites overseas containing over 8 million Curies
- Recovered over 16,000 radiological sources domestically containing over 175,000 Curies
- Secured 85% of Russian nuclear weapons sites of concern; work underway to complete remainder
- Reached agreement with Russia on maintenance of security enhancements completed since 1990s



Enhancing Capabilities to Detect and Deter Illicit International Nuclear Transfers

- **In 2006, U.S. and Russia agreed to equip all of Russia's border crossings with radiation detection equipment by 2011 (6 years ahead of schedule), building on the 117 crossings already equipped**
- **NNSA Megaports radiation detection equipment at large international seaports operational in 12 countries with various stages of implementation at ports in 17 other locations.**
- **Trained nearly 8,000 foreign officials and over 5,600 U.S. officials on WMD commodity identification to detect illicit exports**

Second Line of Defense detection equipment

WMD Commodity Identification Training

Strengthening & Enhancing Int'l Nonproliferation Efforts

- **Engaged thousands of former weapons scientists and engineers, helping to create thousands of civilian jobs at institutes across the former Soviet Union and in Libya and Iraq**
- **Trained over 1,000 foreign facility operators on nuclear material control and accounting procedures**
- **Strengthened the Nuclear Suppliers Group guidelines and control lists**
- **Working with IAEA on mechanisms to assure fuel supply for states and to provide viable alternatives to enrichment and reprocessing**

Nonproliferation Research and Development

Developing new technologies to improve U.S. capabilities to detect and monitor nuclear weapons production, proliferation, and prohibited nuclear explosions worldwide:

- **Proliferation Detection Program** develops the tools, technologies, and expertise for the identification, location, and analysis of proliferant weapons and materials.

- **Nuclear Detonation Detection Program** builds operational sensors that monitor the planet to detect and report surface, atmospheric, or space nuclear detonations and produces geophysical datasets enabling seismic monitoring networks to detect and report underground detonations.

Proliferation Increased Despite U.S. Reductions

- Over the past decade, we have seen very significant reductions in numbers of nuclear weapons.
- We have not seen commensurate reduction in the proliferation threat.

Conclusion

- **The NPT remains an essential element of the global nonproliferation regime.**
- **The United States has an exceptionally strong record of support for, and compliance with, the NPT in all respects, including Article VI.**
- **Pace and progress of reductions in the U.S. arsenal have been extraordinary.**
  - **Partnership with Russia facilitating great progress on reducing nuclear materials**
- **Improving the security environment is key to achieving the goal of complete nuclear disarmament.**
- **U.S. nuclear posture is consistent with our NPT obligations and supports NPT goals.**

The United States remains committed to the goals expressed in Article VI and the Preamble

The United States and Article VI

Any Questions?